

## MINUTES OF THE FLOOD CONTROL ADVISORY BOARD

May 23, 2000

The regular monthly meeting of the Flood Control Advisory Board was called to order by Chairman Martin at 2:03 p.m. on Tuesday, May 23, 2000.

**Board Members Present:** Melvin Martin, Chair; Gilbert Rogers, Vice Chair; Shirley Long, Secretary; Hemant Patel; Mike Saager; Paul Cherrington, Ex Officio; Tom Callow, Ex Officio.

**Staff Members Present:** Mike Ellegood, Chief Engineer & General Manager; Julie Lemmon, General Counsel; Tom Johnson, Deputy Chief Engineer/Division Manager; Dick Perreault, CIP/Policy Branch Manager; Scott Vogel, Project Manager; Bing Zhao, Engineering Application/Development Branch Manager; Doug Williams, Project Manager; Joe Young, Management Analyst; Kathy Smith, Clerk of the FCAB; Monica Ortiz, Administrative Coordinator.

**Guests Present:** Bob Adams; Bernie Barry; Bob Darre; Liz Clendenin; George Dopp; Robert Duckworth; Jeannette Fish; Ed Fritz; Brian Fry; David Gage; Greg Grant; David Hahn; Mike Heaton; Joan Horne; Rick Johnson; Ellen Keil; Emily Kile; Michael Lopez; Ed Lowry; Paul Manera; Elizabeth Manera; L. Steve Miller; Berd Moore; Doug Nelson; Larry Pagini; Judi Pagini; Bill Perkins; Robert Plenge; George Seiverd; Virginia Simpson; Ben Sucher; C. Svoboda; Vicki Svoboda; Mike Sylvain; Jonathan Wainwright; Roger Welch; Kent Wick; Elaine Wilcox; Bob Yoder

- 1) Approval of the Minutes of the regular meeting of April 26, 2000.

MR. ROGERS MADE A MOTION TO APPROVE THE MINUTES AS SUBMITTED. MR. PATEL SECONDED THE MOTION AND IT CARRIED UNANIMOUSLY.

- 2) Intergovernmental Agreement (IGA) FCD 1999A026 between the Flood Control District, the Town of Paradise Valley, and the City of Phoenix for the Doubletree Ranch Road Drainage Improvement Project.

Mike Ellegood began by stating that subsequent to the last time the Board heard this item, the Flood Control District had done some additional analysis on the project.

Scott Vogel, Project Manager, presented the Doubletree Ranch Road Drainage Improvement Project as an action item to approve IGA FCD 1999A026 with the Town of Paradise Valley and the City of Phoenix for cost sharing, utility relocations, rights-of-way acquisition, construction, construction management, and operation & maintenance.

Mr. Vogel mentioned that this project was heard in February of this year, but admittedly the presentation was incomplete and lacked information required to show the benefit and need of the project.

As background, the project was requested by the Town of Paradise Valley in 1994 in order to mitigate flooding of homes and property and to improve traffic circulation during flood events. The Prioritization Committee here at the District reviewed and approved this request in 1994. The Flood Control Advisory Board and the Board of Directors approved a Resolution authorizing a Feasibility Study, which was initiated in 1995. The Advisory Board and the Board of Directors approved Resolutions authorizing the negotiation of IGAs for the completion of the project and authorizing the design and rights-of-way acquisition for the project. The results of the Feasibility Study included:

- ✍ A 100-year Storm Drain System
- ✍ Improvements to Cherokee Wash to bring the Wash up to a 20 to 30-year level of protection
- ✍ A project that would be cost prohibitive at \$33 million

The Town and the District decided to pursue a project with a lower level of protection and a reduced benefit area. This project would include:

- ✍ A 10-year Storm Drain System
- ✍ A portion of Cherokee Wash being diverted at 56<sup>th</sup> Street
- ✍ Lowering Doubletree Ranch Road to provide conveyance for 100-year storm surface flows

In 1997, the Advisory Board and the Board of Directors approved an IGA with the Town of Paradise Valley to cost share in the design of this system. The IGA allowed for the Town to upgrade Doubletree Ranch Road at 100% cost to the Town. The design for this was initiated in 1998. During the design, the Town decided to investigate modifications to the scope of the drainage project, which would include improvements to Cherokee Wash and/or improvements to the ditches along Doubletree Ranch Road. The reason for their investigation was that there was potential to downsize and/or eliminate some of the other storm drains in the project. These items were reviewed and it was determined that they were not beneficial for the project from a cost, aesthetic, and safety standpoint. Town and District staff signed a Memorandum of Understanding for the Project at the 30% design level indicating the intent of the Town and District to complete the construction of the project at a 70/30 cost share.

There are two components to this project:

- ✍ The Drainage Improvements which the District would cost share
- ✍ The Street Improvements which the Town would fund at 100%

The Drainage Improvements consist of a 10-year Storm Drain System and conveyance of 100-year storm surface flows on Doubletree Ranch Road. Major construction items consist of:

- ✍ Storm Drain Main Line and Laterals
- ✍ Manholes, Catch Basins and Inlets
- ✍ Excavation for Lowering Doubletree Ranch Road
- ✍ Doubletree Ranch Road Pavement Replacement
- ✍ Lateral Pavement Replacement
- ✍ Traffic Control
- ✍ Construction Management (8%)

In addition to the drainage improvements, the plans include improvements to the street to be paid for by the Town and would be constructed with the drainage improvements. These improvements include:

- ✍ New Curbs and Sidewalks
- ✍ Traffic Calming
- ✍ Median Treatments
- ✍ Landscaping

Project responsibilities include:

- ✍ The Flood Control District will:
  - ✍ Acquire drainage Rights-of-Way
  - ✍ Be the Lead for Construction
  - ✍ Perform Construction Management
- ✍ The Town of Paradise Valley will:
  - ✍ Conduct Public Involvement Activities
  - ✍ Provide Roadway Rights-of-Way and Permits
  - ✍ Operate and Maintain the Constructed Drainage Improvements
- ✍ The City of Phoenix will:
  - ✍ Provide Rights-of-Way and Permits within its jurisdiction, at no cost to the project

Of the estimated \$11.4 million for the drainage improvements, the District's estimated cost share is \$8 million, and the Town's estimated cost is \$3.4 million. In addition, the Town would fund upgrades to the street at an estimated \$2.3 million. Mr. Vogel showed the Advisory Board a breakdown of the \$11.4 million cost of the Drainage Improvements:

- ✍ Storm Drains, Inlets, and Drainage Structures (\$8.83 million)
- ✍ Roadway Excavation for Storm Water Conveyance (\$120,000)
- ✍ Removal and Replacement of Existing Features (\$510,000)
- ✍ Pavement Removal and Replacement (\$630,000)
- ✍ Mobilization and Traffic Control During Construction (\$450,000)
- ✍ Construction Management for Drainage Items (\$750,000)
- ✍ Easements for Drainage Inlets (\$110,000)

Dr. Bing Zhao, Engineering Application/Development Branch Manager, presented the engineering and scientific findings on the project.

Dr. Zhao showed the three major washes in the project area, the Berniel Wash, Doubletree Ranch Road Ditches, and Cherokee Wash. Dr. Zhao showed a map with the detailed stream network flowing from west to east to the Indian Bend Wash. He overlaid the map with the proposed storm drains, showing the main line and the three laterals. The purpose of the laterals is to capture and convey the sheet flow in that area. The main storm drain and laterals will be underground. Dr. Zhao emphasized that when you look at the geomorphology of the area, you can tell that the flow goes from steep terrain to shallow area sheet flow. The map showed clear drainage patterns along Doubletree Ranch Road. Dr. Zhao pointed out the concrete channel, draining the sheet flow from Phoenix onto Doubletree Ranch Road. He also showed a detailed street map with an overlay of the natural flows shown on a 1957 aerial photograph.

Dr. Zhao showed a comparison between 1957 and 1999, which showed that:

- ✍ The drainage has been changed significantly by man-made buildings and structures
- ✍ There has been no major drainage improvement in this area except the concrete channel in Phoenix

Dr. Zhao noted that since 1970 there have been seven storms recorded. He showed several photos taken in June 1972 of a local thunderstorm and the damage it caused to the whole area. Several photos were taken 600 hundred feet north of Doubletree Ranch Road, at Foothills Manor, from several different directions. Other photos were shown about 500 feet south of Doubletree Ranch Road at Horseshoe and Martingale Roads.

As an overview, Dr. Zhao explained that the background hydrology shows the lack of a basic drainage system for the area. He mentioned that in 1995, the Flood Control District hired Hook Engineering, Inc. and Kaminski-Hubbard Engineering, Inc. as part of the feasibility study in order to study the hydrology in the project area. Their study was based upon Maricopa County's Drainage Design Manual (Hydrology) and their design storm was based upon a 10-year, 24-hour storm from the National Weather Service. The design storm for the Doubletree Ranch Road area is about 2.4 inches. A rainfall run-off model was developed, and the watershed was then divided into many small watersheds. Hook Engineering used the rainfall run-off model in conjunction with land uses and soil types. From that model, the District computed the discharge hydrograph for each concentration point against the watershed. Dr. Zhao used this information as input for his next task, which was calculating the flow hydraulics for the flooding areas.

The discharge hydrograph developed by Hook and Kaminski-Hubbard Engineering was then used in a FLO-2D model. The FLO-2D is a state-of-the-art, two-dimensional, unsteady state hydraulic computer model and solves two-dimensional continuity partial differential equations and two-dimensional momentum partial differential equations by finite difference techniques. The FLO-2D model is a FEMA-adopted computer model. Dr. Zhao explained that he used the FLO-2D hydraulic model showing 2-foot contour elevations and then included the houses. Dr. Zhao ran the model on a fast Pentium computer, which took 12 hours for a single result. He indicated that this took many weeks of full-time work. Dr. Zhao showed the results of this model.

Dr. Zhao then showed the benefits of the proposed storm drains by overlaying the drainage system over the storm flooding areas model. He indicated that approximately 185 homes are currently subject to flooding. Dr. Zhao showed that an estimated 145 homes would be removed from the flooding area for 10-year storms and flooding will be reduced for 40 homes for 10-year storms.

At this time, Dr. Zhao showed a 5-minute video tape taken during the 1992 storm at three different locations, 56<sup>th</sup> Street/Cherokee Wash, 56<sup>th</sup> Street/Horseshoe Road, and 600 feet north of Doubletree at Foothill Manors. Dr. Zhao pointed out the significance of the high watermarks. He mentioned that a watermark is one of the most useful tools for engineers and scientists to study flood problems.

Mr. Vogel presented an estimate of potential damages based on storms such as the one in 1992. He stated that to do this estimate, he used the Federal Emergency Management Agency (FEMA) Residential Damage Estimator. Based on the average home value in the project area, which is approximately \$450,000, \$90,000 of damage was estimated to each home. This was based on approximately six inches to one foot of flow in a house. Mr. Vogel multiplied this out showing that if 100 homes get damaged from flooding, \$9.0 million worth of damage would occur. He emphasizes that the flooding Dr. Zhao modeled is based on a 10-year storm event. The design life of the project is 100 years. Mr. Vogel stated that probability tells us that there will be ten 10-year events in the design life of the project. He gave an example that if 50 homes were damaged during a 10-year event, a total of \$45 million worth of damage would occur during the design life of the project. Mr. Vogel explained that this project would reduce the damages from higher frequency storms – 50-year and 100-year storms – and in addition it would take care of the lower

frequency storms – the two and five-year storms that we experience. Mr. Vogel mentioned that this estimate does not include:

- ✍ Damage to personal property (inside and outside of homes)
- ✍ Infrastructure damage to roadway, utilities and landscaping
- ✍ The potential for loss of life or injury during storm events
- ✍ The access costs by emergency vehicles during storm events.

Mayor Edward Lowry, Town of Paradise Valley, thanked the Advisory Board for agreeing to give the IGA for this project further consideration. Mayor Lowry emphasized the need for this project and that Dr. Zhao's presentation clearly showed that need. He mentioned that it has been suggested that all the Town needs to do is to clean out the ditches along Doubletree Road and do some work in the Cherokee Wash. Mayor Lowry also mentioned that the Brooks Hersey report looked at the ditches on Doubletree and said that basically the ditches can't carry much more even when cleaned out than about a two to three-year storm. In addition, it would be very likely that water would migrate off to the east side of the road.

Mayor Lowry stated that this is a project for an area, not a project for just one road in that area. He mentioned that some of the photos Dr. Zhao presented showed the urbanization that has occurred in the project area since 1957. Mayor Lowry commented on a statement made at the last Advisory Board meeting where a resident said that they did have flooding, but that they were able to take care of this by basically building their own flood control project on their property. He emphasized that with over 400 homes in the area, many separate little projects are not going to work and would have the potential to accelerate the problems and perhaps a catastrophe.

Mayor Lowry commented on the discussion about the involvement of the Town as far as the road is concerned. He said that the Town of Paradise Valley is going to be responsible for rebuilding and improving Doubletree Ranch Road. The additional cost of the project, which the Town and the Flood Control District share, is basically for the removal and replacement of existing pavement. The Mayor further stated that beyond that, the Town will be spending almost \$2 million to upgrade the roadway with recreation paths, landscaped center medians, traffic control/calming, roadway landscaping, and textured crosswalks. He emphasized that the Town does not want to do these upgrades until they have drainage protection for the road.

Mayor Lowry said that there have been suggestions that the project is not really supported by the majority of residents who live in the area. He mentioned that over the last year and a half, there have been two petitions presented to the Town Council. He said that the first petition was by those who either suggested that more studies needed to be done or that they were opposed to the project. He mentioned that there were 80 residents who lived in the benefited area that said they were opposed to the project; this represented 38 properties. The second petition was from those favoring the project and consisted of 283 residents who supported the project; this represented 189 properties. The Mayor suggested that there is clearly support for the project in the area from the people who will benefit from it. He mentioned that the Advisory Board received a copy of a letter from Mayor Rimsza acknowledging support from the City of Phoenix. Mayor Lowry emphasized that the City of Phoenix approved the IGA on May 10, 2000 and that the Town of Paradise Valley approved the IGA on May 11, 2000. He further stated that copies of a letter from the Principal of the Cherokee School and a letter from the Deputy Superintendent of the Scottsdale Public School System were previously provided. The letters indicate their support for the project, primarily because of their concern of having students trapped at the school in a major storm, which has occurred in the past. The Mayor mentioned that members of the Town Council have to consider the protection of the children at the schools. Mayor Lowry mentioned that there are four former mayors (Mayor David Hung, Mayor Joe Horn, Mayor Robert Plenge, and Mayor

Kent Wick) of the Town of Paradise Valley in attendance at the meeting, showing their support of this project and he asked them to stand. He further mentioned a letter from Representative Jeff Hatch-Miller who, as a resident of the Town, supports the project.

Mayor Lowry explained that the Town, after the Advisory Board's previous action, felt they should have the benefit of independent analysis to see what the problem was before, so they retained the services of Mr. Bill Matthews. The Mayor mentioned that the Town Council unanimously approved the IGA for this project. He further mentioned that this was after two years of careful study and long hearings, all of which were open hearings.

Mayor Lowry concluded by saying, "The issue of the IGA before you today is the future. Your approval of this IGA will be for the future prevention of major economic losses, and more importantly to protect lives and increase safety for those living in the project area."

Mr. Vogel concluded the presentation by stating that staff recommends that the Advisory Board approve and recommend that the Board of Directors approve this IGA with the Town of Paradise Valley and the City of Phoenix for the Doubletree Ranch Road Drainage Improvement Project.

#### Discussion:

*Patel:* Do you have a feel for the regional nature of the project and the quantity of the flow coming off the mountains from Phoenix into the Town? Do you have a number for that?

*Vogel:* The 10-year flow at Doubletree and Tatum is 284 CFS. At Indian Bend Wash the flow in the proposed 10-year storm drain would be 906 CFS.

*Long:* Is this a delineated floodplain area, and if not, why is it not?

*Vogel:* It is not a delineated floodplain.

*Long:* What is the Flood Control District's liability if there is some form of deviation of what is going on now? What is the liability for the Flood Control District if there are some problems with this engineering program that they are initiating for Doubletree Road?

*Lemmon:* Are you asking if the project as engineered isn't functioning correctly are we picking up liability?

*Long:* Correct.

*Lemmon:* I'm sure if there was ever a problem, all parties involved in the IGA would be brought into court. That seems to be how those things are approached. In the Arizona Statutes, the District has some immunity if it does things according to a standard engineering procedure, if you do it according to the accepted practices at the time. I assume that is being done, Dr. Zhao has done a lot of modeling. Also, there are some immunities in state law for decisions that are made on where you spend money. As long as you make your decisions based on good information, you are probably not being exposed to any more liability than anyone else would be in the situation that is involved in the agreement. Every time we get involved in a project, obviously we have some exposure, but the law does give us some immunities for doing it in the proper, engineered studied way.

*Long:* If indeed, this is as vast a scope as presented, why has it not been a designated floodplain area?

*Lemmon:* The District is limited to designate a floodplain under state law once a city takes over its jurisdiction under the statutes. The Flood Control District cannot go into that jurisdiction and delineate a floodplain without the jurisdiction's permission. The decision whether to delineate or not would have been something made by the Town. You might want to address that decision to the Town. We have no independent ability, once they act under statute, to take over that responsibility.

*Long:* I would ask whoever is available from the Town for a response as to why something like this was not addressed?

*Lowry:* The history that this current council has looked at regarding this project goes back well over ten years. The Town, along with the District, has been studying and restudying this. It's not for a lack of desire to address the project, but has regrettably taken way to long. That is why we as a Town feel responsible to get this project moving. The problem has been there and we've been working on it, trying to develop a project that will work and be affordable.

*Long:* What about the liability issue? I'm concerned about the future as far as the Flood Control District's liability in this. If this issue has been around a long time and is of such a major concern, why has it not been designated as a floodplain?

*Lowry:* I think what your counsel has stated is correct. If the Flood Control District and the Town, after thorough research and investigation, come up with a project and it is approved and built, in the general common-law, there is no liability because of the fact that you built this based on the best information you have available. Unless you can show that there was some gross negligence, you would not be issued liability. To allow this to go on for further studies, at this point, because we do have a very well designed project, I think there may be equal liability issues there.

*Long:* When you divert an actual flow, you are lawfully liable. I'm just curious as to why the Town of Paradise Valley has not addressed this issue.

*Lowry:* We have been addressing it with the Flood Control District for a number of years . . .

*Long:* Within their own communities, that's what I want to know.

*Lowry:* The Town just doesn't have the resources to do something like this.

*Ellegood:* While the Flood Control District has responsibility County-wide for flood control, including delineation of floodplains, it's an option on behalf of the cities that we support whether or not we are involved or given the authority to delineate in a particular community. There are many communities, for various reasons, that prefer to manage their own floodplain delineation or others that just don't want to know. While it's speculation, conceivably back 10-20 years ago, the community leaders in the Town presumably didn't want us involved or didn't know what we could do, or didn't think about it, so consequently it developed. We could certainly go in today and delineate a flood hazard area, but the residents that are there are there, and we can't just remove them. With regard to liability, now that we know about this problem and now that we have studied it and developed a means of mitigating this hazard, I believe that we have an even greater responsibility to continue with this project and provide the residents with some sort of mitigation. Some governmental agency, whether it be the District or the Town, has the responsibility, if not to completely mitigate, certainly to warn the residents.

*Martin:* What you are saying is that sub-developers come in and sub-divide property without taking care of the water management?

*Ellegood:* That's speculative, but conceivably that could happen. I don't know what happened when the Town of Paradise Valley was developed. It's evident that nothing happened at that time, but now that we know about it and we have an opportunity to mitigate it, we should be doing that.

*Callow:* I'd like to compliment Dr. Zhao on his presentation. I thought you did a very good job of explaining the problem and demonstrating the solution. As far as the comments about liability, I echo what Mike said. Even in the City of Phoenix, we get sued a lot. I can't ever remember being sued for putting a storm drain in, I can remember being sued for not putting one in. I think we stand a greater risk with no action than we do with taking an action in terms of liability. Also, in terms of a public safety issue, if the road is under water, you can't tell if the road is there or not. Fire services & public safety services can all be cut off and that's where you run an even greater risk of liability.

*Cherrington:* In talking about liability, you are only protecting for a ten-year flood. The liability that you normally look at for delineated floodplains are for a 100-year flood, is it not?

*Ellegood:* That is correct.

*Cherrington:* Both the Town and the Flood Control District, whether you do the project or not, still have the potential for liability above the ten-year flood. I suspect there is liability with the concrete lined channel that was constructed in Phoenix that goes to nowhere, other than dumps it into Paradise Valley.

*Callow:* I doubt it.

*Cherrington:* All of this work at night & weekends, when did Dr. Zhao do all that?

*Zhao:* We started last year and we did several kinds of modeling, using the traditional method, which most engineers are using, but we found out those models cannot give us the details.

*Cherrington:* This sounds like I'm suspicious, and I guess I am. The last time we met on this subject, we asked some specific questions about the kinds of things you presented – the depths of water, the flood protection, the benefits – and none of that was available. If you did all this work prior to that, it seems like some of it should have been available. Now, all of a sudden, there are all kinds of very sophisticated information available. You characterize it as a science and very scientific, it's a scientific art. Depending on how you apply run-off coefficients, soil factors, and how you position the storms, that flood can change dramatically.

*Zhao:* I think the traditional way to do the modeling is to use HEC graphs; however, there is a sheet-flow condition. I generated a group area map, which was available the last time we presented this project. More recently, we did the FLO-2D, two-dimensional model that solves unsteady state. The fundamental difference between this model and other models is that the unsteady state model tells the real time situation in the flooding area.

*Cherrington:* None of that is any better than the input assumptions that you put into that model, is that correct?

*Zhao:* I was actually using the lower end of the sheet flow run-off coefficients.

*Cherrington:* I have a suspicion for why all this information seems to be available. Why wasn't it available when you presented it previously? We are going through a very traumatic, political public process, and quite frankly I'm suspicious as to how, suddenly, we have this information. Wasn't the 1972 storm a tornado?

*Zhao:* It was a local storm.

*Cherrington:* Wasn't there a tornado associated with that?

*Zhao:* It was not a tornado. It was not Nora. It was a local thunderstorm. I started helping Tim Phillips last year with this and showed him the traditional way, but we could only get the area, not the depths, flow velocity, etc. Recently, I was asked to study the problem from a scientific point of view and to be very objective in my study of this area. I don't think anyone was hiding information from you. We've done our best and put a lot of hard work into it.

*Vogel:* As the project manager for the project, I was responsible for putting together the presentation in February and I failed to include all of the information that we had. The information that we did have available was lacking, so coming back now and knowing that this information was of interest to you, we've put it together to present today.

*Ellegood:* The Flood Control District, largely through the work of Dr. Zhao, has been selected by Brigham Young University to be a beta test site for some of the latest hydrologic modeling that they are developing. Dr. Zhao was here a year ago, but information you are seeing today wasn't developed then. This is the latest, most cutting-edge information we can present. If you take a look at the flooding data Dr. Zhao presented in his model and you compare it with the high watermarks that came out of the actual photographs in 1992, it would seem to me that Dr. Zhao's model is conservative. It shows less flooding than actually occurred in 1992. I'm very comfortable with Dr. Zhao's results. It's been reviewed by one of the finest consulting engineering firms in town, two previous Flood Control District Chief Engineer & General Managers have reviewed it and it's the best we can come up with.

*Cherrington:* Was that done since our last meeting too?

*Ellegood:* Yes



*Cherrington:* What was the logic for that? Are you not confident and comfortable with Dr. Zhao? Why go outside the District? How much have we spent justifying this project?

*Ellegood:* Whether the project was being justified or the need for the project was being reviewed depends on your point of view. You asked some very good questions at the February meeting, questions that we did not have adequate answers for at that time. I felt these questions needed to be answered. I can tell you, not today, how much we spent in terms of internal staff-hours. I can tell you that a lot of time was spent that no one will ever see because Dr. Zhao worked nights and weekends. The taxpayer will never pay for that. This was time put in because Dr. Zhao is dedicated. I can tell you that if our results had come up differently, if we found there wasn't a problem, that simply maintaining the existing ditches and putting in a culvert, etc. would resolve the problem, that answer would have come out as well. Personally, the more I get involved in this the more justified this project becomes in my own mind and the greater the need for it.

*Cherrington:* As far as scour marks and high watermarks, you may have referenced the construction of Roosevelt Dam. Roosevelt Dam was recently raised and was done so because of a study done similar to Dr. Zhao's. A probable maximum flood as opposed to a ten-year storm or a 100-year storm. The latest information on the magnitude of that storm, based on modern technology, is hellaciously vague. We went to try to validate that storm; we went into rock canyons in the Salt & Verde Rivers and did flood studies. The highest scour marks of those flood studies are nowhere near the size of that technology. The science is still an art and it depends heavily on the factors that you put in there. I guess I'm curious as to whether we are totally objective when we are looking at it. I certainly hope we are because I'd hate to have that feeling about the Flood Control District's motives. But it all seems very curious that it comes together after we turn down a very controversial, political project.

*Ellegood:* As Chief Engineer & General Manager, I do not have a burning desire to spend nearly \$8 million worth of taxpayer money on something that we don't believe in. We have fought projects when they've had some political constituency, but did not make flood control sense. I think this one does. This is the best science we can do. My instructions both to my project manager and to Dr. Zhao were to find out from their best engineering ability what makes sense out there. If this project does not make sense, then we don't do it. We'd go back to the Town of Paradise Valley and the Mayor and let them know it doesn't make sense. The information is as right as we can get. No one else has shown me better science. I hear a lot of emotional arguments about not doing the project. No one has come to me and said they know this won't work, there is no science contradicting it.

*Martin:* Last time there was testimony from the person who lives at 56<sup>th</sup> Street where it flooded that they put in too small of culverts going through their property and it clogged up. Since then, they have testified that there is a dip there now since the culverts were removed, so your pictures were, in my opinion, biased in that situation. Were your pictures at 56<sup>th</sup> Street? You showed a video of the flooded street, where the road was torn up and the culverts weren't taking the water.

*Vogel:* That location was 56<sup>th</sup> Street at Cherokee Wash.

*Martin:* The high watermark that you keep referring to has to be in that area, is that right?

*Zhao:* Yes.

*As a point of clarification, Dr. Zhao later indicated that there was more than one location on the video tape showing watermarks, one of which was 56<sup>th</sup> Street & Cherokee Wash.*

*Saager:* Mayor Lowry, when I first looked at this project, to me as a developer it looked like the Town of Paradise Valley just wanted a new road. Why isn't Paradise Valley just doing this project without the County? Do you not think that you can build your new road without our cash injection? I know residents in the Town and know that they pay some pretty hefty taxes and I beg to differ that you don't have the resources to build your own road without us?

*Lowry:* First, I'd like to go back to a comment from Mr. Cherrington. After the Board's action in February, the Town Council, based on the information that we received, could not understand the action the Board took on the basis of the information that we have been given over the preceding

year. So, at that time, the Town did retain the services of Mr. Matthews and Mr. Sagramoso asking them to take a look at this project and find out, if there are problems with it, what are they, but to do this on an independent basis. This was not paid for by the District, the Town commissioned this study. They came back and told us, on the basis of their review, that they felt that clearly this project was needed and that this was a really fine solution to it. On your question, Mr. Saager, about why doesn't the Town go ahead and build the road. We've been advised that the Maricopa County Minimum Road Standards for building a road in Maricopa County require that the road be protected against a ten-year flood. It doesn't make sense for the Town to just go in and build a road, scrape out the ditches a little bit on each side and not protect it. As councilmembers, we have a fiduciary responsibility to spend the Town's money wisely. Knowing what we know today, if we were to go in and build that road without protecting it, I think we would be required legally to go up to a ten-year flood, we would clearly subject ourselves to liability. You say the Town does have the resources. The Town does have a lot of resources, regrettably those resources are restricted because certain restrictions were put on those funds years ago when the voters approved and established the capital projects accumulation fund. Those funds are not available for a project of this size.

*Saager:* Has anyone looked at the funds Paradise Valley has? I clearly think that you have the funds. Without the County's involvement, how much would it cost Paradise Valley to build this road?

*Lowry:* To build just the road?

*Saager:* With flood control measures?

*Lowry:* It would be basically the same cost as this project is. That's what we've been told by the people we rely on. If we had to go in and contract a flood control project like this one and also rebuild Doubletree Road, I think the cost would be very much the same. The suggestion has been that this is a road project for the Town. I think 75% of the project budget is for the hardware (the pipes, culverts, etc.) and only about \$600,000 is the cost share of removing the existing pavement and then replacing it. The other costs are above and beyond what was mentioned before. We want to take that road and bring it up to a fine residential road. To do that, in addition to what we are spending for our share of the flood control project, we are spending an additional approximately \$2 million (for traffic calming, medians, landscaping, etc.).

*Saager:* Why don't you put this to the voters who live in the Town of Paradise Valley and see if they want to raise the funds through some kind of a bond issue? It just doesn't seem like the Town has really been heard. To me it's been just a vicious cycle of politicians vying to get what they want. It's the people that we are here to serve. Do you know if the Cherokee Wash was cleared out when these six floods occurred? I went out there with Liz (Clendenin) yesterday and I saw that people had done a pretty good job of cleaning out their own floodways. Do you know if the Cherokee Wash and the others were cleaned out when this flooding occurred?

*Lowry:* I have no personal knowledge if it was or not. I know that the Town, several years ago, did go and do a major clean up of Cherokee Wash.

*Saager:* When this flooding occurred, do you think that those washes were cleared out as good as they are now? The washes seem to be fairly cleaned out now by the citizens. Do you know, when all this flooding occurred, was Cherokee Wash even cleaned up as much as it is now?

*Vogel:* I think it's important to point out here that in addition to the improvements along Cherokee Wash, a great deal of this project has to do with water coming down out of the Phoenix Mountain Preserve, west of Tatum Boulevard, through the Doubletree Canyon area. Improvements to Cherokee Wash will do nothing to help the flood flows that come from that area.

*Lowry:* I'd like to answer your last question about referring this out to the voters. The way that I understand how local municipal governments work is that the voters elect their representatives to make decisions for them and it is that group that makes those decisions. If every time there was a controversial matter that had to be referred out to the voters, you would have a great deal of

expense and probably an incredible amount of delay. There is the referendum ability that if residents are not satisfied with actions that their government has taken, they can get enough signatures to put it out for special election. But, as I understand it, every time we have an interesting or tough question, we can't just automatically refer it to the voters because that is what we are here for.

*Long:* Do the residents of Paradise Valley pay taxes in Maricopa County?

*Lowry:* Yes they do.

*Cherrington:* You say the Town is responsible for ten-year flood protection because of the Maricopa County Standards?

*Lowry:* I think that is the standard that would be the smart one for any town council to follow when you are building a road. Particularly in an area like this where we have the information that shows us it is in a flooding area.

*Cherrington:* I'm not sure how many cities adopt that standard. I know Phoenix doesn't, they have a two-year storm protection. If you've adopted the County Standards with a required ten-year protection, why are you looking to the County to provide that for you?

*Lowry:* Flooding is the responsibility of everybody. Every municipality and every government has a responsibility. Every resident who does something on his property to divert water on the property of another is responsible for that. We've understood that the Flood Control District was here to help municipalities control flooding that occurs in their municipalities. This Council has come into office with the understanding that the Flood Control District was here to help us and to work with us.

*Cherrington:* I would like to think we are. We don't help Phoenix protect for their accepted responsibility for flooding. We don't take care of two-year storms, that's what they take care of. I'm a little surprised that you say you've adopted those standards.

*Lowry:* The Town has not adopted these standards. I think it is a good guideline for how much flood protection we should give this road based on the information that has been accumulated. Over the last year and a half that this Council has worked on this, good judgement says you'd better protect it because there will be a ten-year flood and when it does come along, your \$3-4 million dollar road will be gone or very seriously damaged. That's our concern and I feel that we have that responsibility.

*Saager:* I was told in a meeting that yourself and your fellow council members voted unanimously for this project – that there were ten people in opposition and only one in favor from the Town's people. Is that accurate? Do you know how many spoke for the project and how many spoke against the project?

*Lowry:* My recollection of that meeting was that there was a substantial majority of people speaking to the Council in support of the project. There was only one person speaking in opposition and there was a substantial number speaking in support. That was when there was a unanimous adoption.

*Ellegood:* With regard to the protection, I got an implication that since this is a ten-year storm drain this protects, that maybe it's not the District's responsibility, maybe it's the local jurisdiction's responsibility. Certainly this is a decision that the Advisory Board is being asked to make. For the record, the Olive Avenue Storm Drain, the Orangewood Storm Drain, the Cactus Storm Drain, and the Oak Street Storm Drain in the Cities of Glendale, Peoria and Scottsdale are all ten-year protection. It's not without precedent that the District would do something less than 100-year protection. Clearly it is our preference to provide 100-year protection since that is the FEMA guideline that we try to work towards, but in some cases it's not practical to do that and that was addressed early in Scott's presentation. This is similar in the sense that we are taking water from one jurisdiction, moving it through a jurisdiction, and dumping it into yet a third jurisdiction, in this case Scottsdale.

*Saager:* What is the price differential from a 100-year flood to a ten-year flood protection? Has anybody attempted to contact the Town to see if they want to pay that difference?

*Ellegood:* The cost differential was \$33 million for a 100-year storm drain versus \$11.4 million for a ten-year storm drain. However, you need to look beyond what the dollar cost is. When you start putting in these huge facilities to carry a 100-year storm, you disrupt the community pretty substantially. In this case, we're putting in a ten-year, underground storm drain. We are putting a 100-year conveyance capacity above ground in the street. We can't prevent some flooding as a result of a 100-year storm, but at least we have a confined capacity to carry that water by slightly depressing the street. This will add some degree of protection and will stop at least the homes adjacent to Doubletree Ranch Road from being flooded.

*Saager:* I'm getting a lot of different facts. I was told the differential was only about \$5 million and clearly that's not the case.

*Ellegood:* We did the numbers back in the early phase of the project. These are unrefined numbers during the preliminary design and \$33 million is what our consultant came up with.

*Martin:* The agreement of understanding broken down by cost, is that documented 12-17-98? It says IGA 97-006.

*Vogel:* The latest revised date is April 14, 2000.

*Martin:* The one we had on 12-17-98 shows different figures. It shows that the Flood Control District is paying 70% of the paving on Doubletree Road. If you have a difference in the IGA, I think the Board should know about it.

*Vogel:* Maybe you could explain a little more the difference that you're referring to.

*Martin:* The IGA, approved on 12-17-98, reads, "Doubletree Ranch Road Pavement Construction, 70% by the District, 30% by Paradise Valley." You showed us on your slide presentation that they are paying 100%. Has that been changed?

*Vogel:* Are you referring to the Design IGA for this project?

*Martin:* Memorandum of Understanding.

*Vogel:* That includes the pavement replacement on the laterals for the storm drain and the paving of Doubletree Ranch Road. Those components are split 70%/30% between Flood Control District and the Town.

*Martin:* So we are paying for 70% of the road? If there is a difference between these two IGAs, the Board should know about it.

*Ellegood:* To my knowledge there is no difference between the two IGAs. Fundamentally, there are two road projects. One of replacement of the existing pavement that needs to be removed in order to put the storm drain in the ground, which is being shared because it is a project cost. I believe the pie chart Scott presented earlier showed a cost of \$630,000 for the existing roadway replacement . . .

*Martin:* The IGA doesn't agree with the pie chart.

*Ellegood:* The Town is putting in a road project which is an improvement over and above what is currently going in, which includes the curbs, gutters, etc. and is funded 100% by the Town.

*Callow:* It shows that. It's the next line down.

*Martin:* What you said in your slide presentation was that they were paying 100% of the pavement and that's not what the IGA says.

*Ellegood:* The slide is perhaps misleading in the sense that the road project that the Town is doing is being paid 100% by the Town . . .

*Martin:* Mike, get a copy of the IGA. It breaks it down specifically . . . I just don't understand why we are trying to be . . .

*Lemmon:* Mr. Martin, are you talking about a Memorandum of Understanding, it's not an IGA, right? It's not been to the Board, it was just the Memorandum.

*Martin:* It has an IGA number on it – 97-006.

*Vogel:* The Memorandum of Understanding includes a split of the pavement replacement about the laterals and about the mainline on Doubletree Ranch Road storm drain to be split 70%/30% between Flood Control District and the Town. Likewise, the IGA breaks it out the exact same way. I'm not sure where the inconsistency is coming from.

*Martin:* I wish you had included a breakdown the way the IGA says it is. If there is a difference in this IGA and the IGA you have in April, the Board should know about it, if there is a difference.

*Vogel:* There is not a difference in the two IGAs between the cost breakdown.

*Saager:* Everybody that thinks that I'm nay-saying the project, I do understand that you've been paying taxes since 1978. The County has provided me with numbers of \$14.7 million since 1978 that the citizens of Paradise Valley have paid for Flood Control District revenue. Does anybody on the County-level know if any of these funds have been allocated for anything other than the 200-300 feet for the ACDC Canal? Have those funds been exhausted other than that and how much was used in that canal?

*Perreault:* The records that we have reflect that the secondary tax rate in the Town of Paradise Valley has contributed approximately \$14 million to the Flood Control District since 1978. What we are talking about is a CIP Project, which is one of eight programs in the Flood Control District. To my knowledge, the only CIP Project that has been built in the last 20 years affecting Paradise Valley is a small piece of the Arizona Canal Diversion Channel.

*Saager:* A couple hundred to three hundred feet, correct?

*Perreault:* That sounds about right.

*Saager:* Do you have an estimate on how much that cost?

*Perreault:* We're probably talking a half a million dollars. The other seven programs of the Flood Control District also benefit, some directly and some indirectly, the Town of Paradise Valley. We have our drainage programs to keep up standards, we keep our staff trained, and we fund our maintenance and floodplain delineation programs. All of those contribute indirectly for the benefit of Paradise Valley, as they do to all the communities within the County. While we may not have spent a lot of money to the benefit of Paradise Valley from the CIP, I believe the citizens of Paradise Valley have benefited from our other programs, but that is not reflected in those numbers.

*Saager:* In your humble estimation, this is a good allocation for the money that is being used for this project that we are voting on today, is that correct?

*Perreault:* I think that is very reasonable.

*Patel:* I want to take the opportunity to compliment Dr. Zhao on his presentation. I also wish this information had been available at the earlier meeting. It would have made a painful decision a little bit easier. Now that we have this information, as an engineer, I think we have to look at what we do with this information. We can argue about the number of homes, but there are homes out there that are going to be affected by storms. My opinion of the project is that if there is a technical merit for it, it needs to be done. If it needs to be shot down from a political standpoint let the politicians handle that. I think that the numbers show that there is a problem out there, whether it's an \$8 million solution, a \$12 million solution or a \$30 million solution. We need to act on it.

At this time, Chairman Martin asked three people from the public to speak in favor of the project and three people from the public opposed to the project. He reminded them that they had twelve minutes on each side.

*O'Dell Keil, Paradise Valley resident:* Mr. Keil mentioned that one of the homes shown on the video tape Dr. Zhao played is the house that he currently resides in. Throughout the duration of this project, he believes that the Town Council has gone out of its way to garner input from the residents in the way of facilitating suggestions, recommendations, and alternatives. They have also gone out of their way to keep the residents informed of the engineer's progress on this project. Mr. Keil stated that the Town Council has held special public meetings where they were able to review the engineer's progress and make comments. He further stated that Mayor Lowry additionally set up small working groups composed of equal number of residents against the

project as well as residents for the project. Mr. Keil mentioned that whenever residents made comments, suggestions, or suggested alternatives, the engineers diligently went back, evaluated those alternatives and then came back and reported on them. A lot of suggestions have been incorporated in the final design stages of the project. However, some of the alternatives proposed for this project were deemed impractical. Some of those alternatives were, for instance, to include retention basins within the Town of Paradise Valley. That was deemed impractical because where those retention basins would have to be located, the land was not available. Another alternative proposed was that rather than run a culvert under Doubletree, a culvert run under Tatum up to Shea to empty the water into an existing detention basin on the corner of Shea and Tatum. That alternative was impractical because the water would have to be pumped up-hill and the existing basin was only rated for a two-year flood event and was already situated to collect water coming off the north side of the mountain preserve. Mr. Keil remarked that many residents said, "Just clean out the existing ditches along Doubletree." The engineers looked at that and reported that even if they were to clean out the ditches to the original depth (and with the complication of driveways going over those ditches with restrictive culverts underneath them), at best those ditches could only handle a two-year flood event. He further remarked that some residents said, "Open up the ditches and make them bigger to handle a ten-year flood event." The engineers went back and worked out the numbers. When they reported what size those ditches would have to be, most residents, including Mr. Keil (who is for the project), objected to the size those ditches would have to be. In conclusion, Mr. Keil said that all through the phases of this project, a lot of alternatives were evaluated. He thinks the design that the engineers have presented here today is a very elegant, practical, vital and cost-effective solution to the problem of flooding in the Town of Paradise Valley. Mr. Keil remarked, that for anyone here who doesn't think flooding is a problem, if these pictures and Dr. Zhao's pictures and graphs weren't enough, he'd like to paraphrase something he read from February's minutes by a resident who is against this project. That resident said, "five or six years ago he walked out to the middle of Doubletree Road on the yellow line and with a yardstick he measured 18-3/8 inches of water. This is a resident against this project. I fail to understand how someone standing in knee-deep water could claim we don't have a drainage problem in that part of Paradise Valley."

*Rick Johnson, Paradise Valley resident:* Mr. Johnson has lived in Paradise Valley for 14 years. His house has flooded, his neighbor's house has flooded, and he's seen tons of landscaping of his neighbors washed out into the streets. This was during an eight-year or less flood event. Mr. Johnson emphasized that this is not a project about a road. This is a project about preventing hundreds if not millions of dollars of property damages in the next 20 or 30-year flood that is surely to come and for which we are long overdue. Mr. Johnson noted that Mr. Vogel's graph of the \$450,000 average property values was greatly underestimated. He mentioned that a lot in there is now \$600,000 plus the house. Mr. Johnson stated that there is great popular support for this project. He and others have gone to the project area, and over the last year have talked to over half of the property owners in this project. They have on file with the Town, signatures of 80% of the property owners they talked to in favor of this project. That is a 4-1 ratio. Mr. Johnson stressed that this is statistically significant and meaningful – the people want it. Mr. Johnson mentioned that in April the Town had an election. The seven Town Council members who voted unanimously for this project were the top seven vote getters. He pointed out that the people of Paradise Valley support their Town because they know the Council members support this project. Mr. Johnson indicated that he had read the meeting notes of the February session and he asked to go on record with some comments. He said the arguments in opposition for this project are based on erroneous data, poor hydrology, and are in direct contradiction with the findings of the District's professional engineers. He stressed that the Board needs to rely on the District's engineers. These people know what they are doing. He suggested that if any of the Board members have something that clouds their mind on this project, that before they vote, they

ask the engineers. Mr. Johnson further stated that there are some questions about this project's liability. He emphasized that this is a great project. It is holding water out of the neighborhood before it gets a chance to flood people's houses. It is relieving liability the way it has been designed. Mr. Johnson referenced one of the engineers saying that this project provides some hundred-year protection with inclination of the road from Tatum to Indian Bend Wash. It's going to pull the excess water that will happen in a greater than ten-year event and get it down into Indian Bend Wash quicker and safer and provide access for emergency vehicles should someone have an emergency. Mr. Johnson noted that there is very little opposition within the Town. Mr. Johnson requested, urged, and implored the Board, on behalf of the hundreds of residents that are going to benefit from this project, to send this project to the Board of Supervisors and let them make the ultimate decision on the future of this project.

*Bob Darre, Paradise Valley resident:* Mr. Darre commented on the point made about the Town having money. He said that the Town may have money, but the taxes are spread around in a lot of areas. He reiterated that there is over \$14 million the Town's residents have paid in taxes since 1978 to the Flood Control District. Mr. Darre use to be in the National Guard and has pulled people out of flood areas. He commented that fortunately, his house doesn't get flooded, but every time we get a major rain, his neighbors across the street get their landscaping washed out. Mr. Johnson stated that he is impressed with Dr. Zhao's analysis of the two-dimensional differential equations. He fully believes that this project is the best for the dollar involved. He emphasized that when it comes down to dollars, we have to justify what is real dollars and what isn't.

*Dr. Ben Sucher, Paradise Valley resident:* Dr. Sucher represents the Concerned Citizens Group against the project. Dr. Sucher expressed concern that the Town has failed to enforce the maintenance of the washes, watercourses and drainage ways. It appears to them that the Town has violated their own code and ordinance in not enforcing this and their question is if there is such a water problem, what does this say about the responsibility and the liability, up to this point, of the Town. Dr. Sucher showed some slides, with examples of debris along Cherokee Wash that are causing substantial blockage to flow. Other slides showed an outlet along Cherokee Wash that is not wide enough and a drainage ditch along Doubletree that has bushes and plants landscaped into it. Dr. Sucher mentioned that the reality of the situation is that the Town has neglected the watercourses. Secondly, encroachment into the Cherokee Wash and Indian Bend Wash, two major drainage ways, have been allowed. Finally, that Doubletree Ranch Road is still going to flood at the Indian Bend Wash. He indicated that this project is not going to do a thing to prevent the flooding at the flooding site near the Cherokee School.

*George Dopp, Paradise Valley resident:* Mr. Dopp mentioned that the IGA states "... will mitigate flooding identified along the roads ..." He talked about four different myths. First being that most washes and drainage channels no longer exist. Mr. Dopp commented that they do exist, but have not been maintained. Second that children are stranded at Cherokee School with every heavy rainfall. He mentioned that he lives right next door and that on the day in question several ladies got hysterical because it took them 20-30 minutes to get to their children. Third that without the drainage project, road improvements are not possible. Mr. Dopp stated that he knows it is possible and that there are some things that can be done that can improve the drainage. Fourth that there are an overwhelming number of homes in the project area that have flooded. He commented that he doesn't think so, that there has been some flooding caused by various reasons. Mr. Dopp went on further to state that since the last meeting, he went around and personally collected signatures. Out of 112 homes that are right along the actual roads where the project is to be completed, 83 residents signed an affidavit that they are against this project. Mr. Dopp went

on to read the affidavit and then showed a map with the homes of those who had signed the affidavit highlighted. He wrapped up by saying that he is for preserving the natural water flow.

*Liz Clendenin, Paradise Valley resident:* Ms. Clendenin mentioned that one of the photos previously shown of a house that was flooded was flooded because of a wall in the wash to the west of Foothills Manor subdivision. She stated that the Town allowed a block wall to be built, which blocked the entire wash and caused the water to flow down a short cul-de-sac and then flowed into the homeowner's yard. Ms. Clendenin stated that solid block walls surround all of the yards, with a few blocks having holes in them. She surmised that most of the water was coming from the sky and not flowing from somewhere else. Ms. Clendenin explained that preserving the Sonoran Desert and maintaining the character & tradition of the Town is what the Concerned Residents for the Preservation of the Town is all about. She reiterated that residents support the refurbishment or reconstruction of Doubletree, but similar to what was done by the Town on McDonald Drive. Ms. Clendenin suggested that the existing watercourses, washes, channels & easements in the area be cleaned and/or restored and maintained. In addition, she suggested that underground culverts for driveways and cross streets, with some landscaping, is all in keeping with the character and tradition of the town. Ms. Clendenin mentioned that they asked the mayor to put this project to the vote of the people. Ms. Clendenin clarified that the map Mr. Dopp showed did not show all of the petition signers. In total, there were 437 signatures. Ms. Clendenin concluded that the residents overwhelmingly oppose this project and that it does not solve the problems it set out to solve.

*Cherrington:* Mr. Cherrington asked Mr. Dopp to clarify the reason why he was opposed to the project.

*Dopp:* Mr. Dopp stated that he doesn't feel that this project is going to do what it says it's suppose to do, other than cause a lot of disturbance. He indicated that if it were for a 100-year flood protection, that would be a different consideration.

*Saager:* I apologize to the Mayor if he thinks I was attacking him personally. I feel that this whole process has been extremely political. I applaud the Mayor, the members of the Council and Michael Ellegood for going out to the private sector with the engineers. I know Bill Matthews and recently met with him on this issue. Bill is not going to put his reputation on the line, or any of these other engineers, just to make a consulting fee, etc. I have to go with the numbers. I did the research and found that the Town residents have paid for this road. Very rarely are funds allocated for projects such as this. The research that the County provided, unless someone can counter that, shows that the Town deserves this road, therefore I will be voting in favor of the project.

*Long:* I do not feel that there is essentially any more information this time than the Board received last time. I feel the money is an issue. I sense future legal and liability problems with the way this project is presented at this point. I feel that the diversity of the Advisory Board is very refreshing and that this is not some rubber-stamped engineers across the Board. I think the diversity of our backgrounds is more effectively serving the public. I cannot justify the amount of money for the project.

*Patel:* I would hate to go through this kind of process again. For the future, let's make sure we get all the data that is available. If not, advise us to table an item so that we don't take a position and then have to change it. I have to go with the numbers and the fact that this project is going to inconvenience people is not our concern. We are here to use funds to try to make improvements for life and safety. I will be supporting the project. I would have supported the project last time if we had had this data.

*Callow:* I don't believe the costs are out of line with the project. This is a reasonable amount of money for the benefit they will receive. I'll be supporting the project, and just so you know why



I changed my vote – I wasn't here at the last meeting. I had a representative stand-in for me for whom it was the first meeting he had ever attended and he was a little intimidated.

MR. PATEL MADE A MOTION TO APPROVE STAFF RECOMMENDATION. MR. SAAGER SECONDED THE MOTION. THE CHAIRMAN ASKED THE CLERK OF THE BOARD TO CONDUCT A ROLL-CALL VOTE. YES VOTES BY MR. CALLOW, MR. PATEL AND MR. SAAGER. NO VOTES BY MR. MARTIN, MR. CHERRINGTON, MS. LONG AND MR. ROGERS. THE MOTION WAS DEFEATED FOUR TO THREE.

*Lemmon:* Mr. Chairman, by Statute, your role is to look at the technical merit and make a recommendation to the Board of Directors, positive or negative. The Board of Directors has the authority to move forward or not because you are only an advisory board, not to in any way belittle your involvement.

In view of the lateness of the hour, the remaining items were tabled. The meeting was adjourned at 4:40 p.m. by general consent.

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Shirley Long  
Secretary of the Board

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Kathy Smith  
Clerk of the Board